

# VOLUNTARY MOTHERHOOD

A Discussion of the Various  
Contraceptive Methods, with Emphasis  
on Generally Approved Techniques

By

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*Author of*

"Physicians' Manual of Birth Control"

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## NOTE:

The approved contraceptive method is an intravaginal rubber pessary, of a type suitable to the anatomy of the patient, fitted by a physician, and used with antiseptic paste or antiseptic paste and douche.

The method is discussed on pages 19 to 21, and in detail in Part III, pages 26 to 36.

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## FOREWORD

### TO THE FOURTH EDITION

“VOLUNTARY MOTHERHOOD”, written in 1923, has been out of print since 1930. At that time, in spite of changes made in the 1926 and 1928 editions, it stood in need of thorough revision, and all the time I could spare from a busy practice was taken up in the preparation of “Physicians’ Manual of Birth Control”, published in 1931. Upon repeated requests from physicians and others interested in Birth Control, I have now undertaken the rewriting of this pamphlet with the intention of presenting a brief approach to the subject for the busy physician, and at the same time of offering my co-workers in the field of contraception a pamphlet which, subject to legal limitations, they might pass on to their more interested patients and thus save the necessity of much discussion on the pros and cons of various methods. I realize that the pamphlet must suffer from this dual purpose, but I hope that the physician will pardon the use of non-technical language, and the layman the discussion of some seemingly minor controversial points. The physician will note the occasional categorical statement without supporting arguments or authorities, and he is referred for a more complete presentation of the subject to “Physicians’ Manual of Birth Control” (obtainable from the publishers of this pamphlet). The attention of the layman is directed to the glossary.

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## Part I

### Introductory Discussion

THE branch of medical science through which parenthood is made subject to conscious control, instead of being a matter of chance, is called contraception, or more commonly Birth Control. It must not be confused with abortion. Birth Control means the prevention at the outset of the act of conception, by which a new life would be formed. Abortion means the destruction of the embryo, a life already formed. Knowledge of Birth Control is the best method of decreasing the number of abortions.

I consider the study of contraceptive methods a branch of medical science which should be taught in the medical schools in order that physicians may be in a position to instruct their patients as to the method best applicable to the individual case. In many conditions serious illness or even death may be prevented by the use of contraceptive methods. Nevertheless little or no instruction is given in this field by the medical schools, in spite of the continually increasing recognition by medical authorities of its place in the modern health program.

The Birth Control movement is not the result of artificial agitation. It has been forced upon the minds of women and men by existing conditions, and neither the prejudices of a certain section of the medical profession nor difficulties due to stupid and antiquated laws have been able to stop its progress. More and more physicians have been won over until it is now rather a question of persuading the average physician of the reliability and harmlessness of modern Birth Control methods than of converting him to the idea. Here is one of those interesting examples in medical history where the layman has forced the physician upon the path of progress instead of, as is more usual, the physician leading the layman.

The legal situation is difficult. While in many States the laws seem to forbid the physician to give the necessary help, yet such laws are capable of widely different interpretations, and court decisions have usually been in favor of the physician's right to prescribe for his patients. Since the most reliable methods depend upon the help of the physician, and

even the less reliable ones give best results under his direction, it is important that the laws be clarified either by amendment or by court decisions on test cases. Legislation cannot prevent birth regulation. All it achieves with its narrow, unscientific attitude is to prevent the spread of reliable and healthful methods, while it leaves the way open for such methods as coitus interruptus and condoms, and helps keep the abortionist busy.

Voluntary parenthood is no panacea for all human evils. It will not solve the problem of poverty nor will it abolish war, as claimed by some neo-Malthusian enthusiasts, but it has a wide scope of influence and is of momentous significance to womankind. Woman can never obtain real independence unless her functions of procreation are under her own control. The woman married to a worker finds in Birth Control the same opportunities for leisure and economic relief as are afforded to her husband through his labor union. To her, voluntary parenthood means the eight or six hour day, instead of the twelve or sixteen hour day which too frequent childbearing forces upon her. She wishes to enjoy motherhood, not to be destroyed by it. The professional woman, through Birth Control, is able to avoid the necessity for that choice which Ellen Key thought inevitable: motherhood or independence. Birth Control enables her to combine both.

#### INDICATIONS FOR BIRTH CONTROL

Most authorities now recognize the necessity for and legality of Birth Control in many cases of kidney trouble, heart disease, tuberculosis, hyperthyroidism, pernicious anaemia, repeated Caesarian deliveries, and other pathological conditions in which pregnancy would increase the violence of the disease or even lead directly to the death of the patient. The effect of too frequent pregnancies upon the health of both the mother and the child must also be considered.

Some authorities also recognize sociological reasons for Birth Control, particularly as such reasons often have a definite effect upon health.

Prevention of conception lessens the number of abortions.

It permits early marriages, and thus prevents nervous disorders and avoids the dangers of prostitution.

It lightens the burden of motherhood, and gives mothers leisure for self culture and healthful activities.

It brings about happier sex relations.

It preserves woman's health and prevents her ageing prematurely.

#### ANATOMY AND PHYSIOLOGY OF CONCEPTION

The external part of woman's reproductive system is known as the *vulva*, and comprises the large and small *labia* (lips) and the *clitoris*. Leading from the vulva to the *uterus* (womb) is the *vagina* (birth canal). The *bladder* empties through a separate opening, the *urethra*.

*Coitus* (the sexual act) takes place in the vagina, which also serves for the passage of the baby from the uterus to the outer world during *labor* (childbirth). In coitus, the *penis* (male organ) enters the vagina, and during the *orgasm* (the sexual climax) of the male, *ejaculation* of *seminal fluid* takes place. The vagina is directed downward and backward. In virgins the vaginal opening is narrowed (not covered) by a membrane, called the *hymen* (maidenhead).

The uterus is a pear-shaped mass of muscle consisting of the *body*, the upper, larger part, and the *cervix* (neck), the lower, narrower part. In its entirety it measures about three and one-half inches long by two inches wide. The cervix projects about one-half inch into the vagina and is about one inch in diameter. The encircling space around the projecting cervix is arbitrarily divided into *anterior* (front), *posterior* (rear), and *lateral fornices* (vaults).

A pinpoint opening in the cervix leads from the vagina into the narrow uterine cavity which at the upper end branches into two horns leading to the *tubes*, two very narrow canals about five or six inches long terminating in trumpet-shaped ends. These tubes almost surround the *ovaries*, the almond-shaped glands in which the *ova* (eggs), carriers of the mother's hereditary characteristics, ripen. Every month

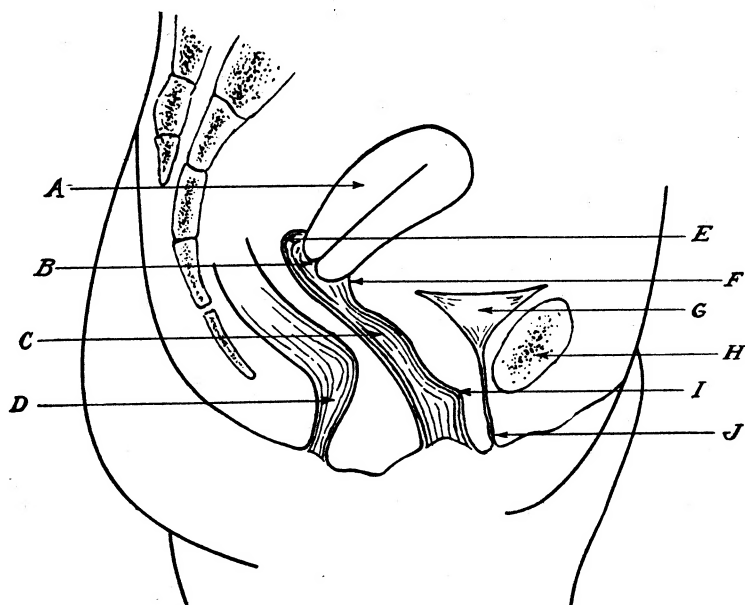


Figure 1 — Anatomical Diagram

A — Uterus  
 B — Cervix  
 C — Vagina  
 D — Rectum

E — Posterior Fornix  
 F — Anterior Fornix  
 G — Bladder  
 H — Symphysis Pubis  
 J — Urethra

A vault pessary fits from E to F.  
 A diaphragmatic pessary fits from E to I.

one of the ovaries discharges an ovum (or ova) into its tube, and from there the ovum is pushed into the uterus. A discussion of the forces bringing this about would lead us into too many details.

The seminal fluid of man, ejaculated during the sexual act, contains millions of microscopically small *spermatozoa*, little cells built for motion, which are created in the *testicles*. Each spermatozoon has a head containing the essential parts of the cell structure, and a long tail which gives it motility.

The spermatozoa deposited in the vagina move toward the cervix, enter the opening in it, pass through the uterus, and from there up the tubes. (The spermatozoon moves about a tenth of an inch a minute.) The union of the ovum and one of the spermatozoa, is called *fertilization*, *impregnation*, or *con-*

*ception* and constitutes the formation of a new life. It usually takes place in the tube, sometimes in the uterus. The newly formed cell, the product of this union, settles down in the uterus and forms the *embryo*, which later develops into the baby.

It is evident that for the embryo to form and develop: (1) an ovum must ripen in the ovary and pass down the tube towards the uterus, (2) a spermatozoon must enter the vagina and **pass through the cervix** to meet the ovum in the tube or uterus, (3) the ovum and spermatozoon must unite, and settle down in the uterus to develop.

#### REQUIREMENTS FOR A GOOD CONTRACEPTIVE

Briefly stated, the purpose of any Birth Control method is to prevent the fertilization of the ovum or its consequent development.

To achieve this, only such methods should be used as are absolutely harmless to the man and woman and have no deleterious effect upon the germ plasm—in other words, the methods must not be detrimental to the health of the individual or of the race.

Coitus is not the coarse, vulgar, primarily physical procedure, often indicated by coarse and vulgar minds. It is really a most complex psychic relationship in which any mental or emotional influence may disturb the normal procedure. The methods used must, therefore, not interfere with the course of normal sex relations, as the nervous equilibrium in both man and woman might be disturbed and psychic injury result.

Naturally any Birth Control method must be so simple that a person of average intelligence can apply it easily. It should not be complicated or necessitate many preparations.

Some authorities on sex hygiene think that the seminal fluid is absorbed by the mucuous membrane of the vagina and that this absorption stimulates woman's health. Although the evidence for this is not conclusive, it must be considered in the choice of method.

A good contraceptive method in my opinion should comply with the following conditions:

1. It must achieve its main aim — prevent conception, *it must be reliable.*
2. It must not be detrimental to health.
3. It must not cripple germ cells (as occurs in X-ray method).
4. It must not interfere with the course of normal sex relations.
5. It must be simple enough to be used by the average person.
6. It should, if possible, allow for absorption of the seminal fluid by the walls of the vagina.

#### CLASSIFICATION AND EVALUATION OF

#### BIRTH CONTROL METHODS

Birth control methods may be classified from various points of view. I shall continue, for simplicity, to follow the method of grouping used in previous editions of this pamphlet, rather than the more technical grouping of my "Physicians' Manual of Birth Control".

#### Methods Used by the Husband

Coitus Interruptus  
Condom  
Soluble Cap

#### Methods Used by the Wife

##### (a) Chemical Methods:

Douche  
Lathering  
Suppository  
Tablet  
Powder  
Antiseptic Paste (Jelly)

##### (b) Mechanical Methods:

Sponge or Tampon  
Intravaginal Pessary

## Other Methods

X-rays  
Heat Applied to the Testicles  
Hormone  
Spermatoxin  
Intrauterine Appliances  
Chemicals Introduced into Uterus  
Sterilization

In Part II we will take up the methods in the above order, considering at the end certain fallacious popular ideas. Part III will be devoted to a discussion of various types of intra-vaginal pessaries and their technique.

In discussing methods I shall lay stress upon the conditions above mentioned: Reliability, healthfulness, and normality and convenience. An original<sup>1</sup> feature of my discussion is that special stress is placed on certain combinations; in fact it will be seen that combinations are the only completely reliable methods.

Descriptions of methods which are unreliable or partly reliable are included for three reasons: First, if I fail to mention a method some reader may think it is a reliable method with which I am not acquainted; second, *under a physician's direction*, a woman with some degree of partial sterility may with safety use a method ordinarily considered only partly reliable; third, under some circumstances emotion is more powerful than reason and on these occasions a poor method of prevention is better than none.

The following table anticipates my evaluation of the various methods:

<sup>1</sup> This was truer, perhaps, in 1923 when the first edition of "Voluntary Motherhood" was printed than it would be at the present time when the necessity for combination methods has become generally recognized.

## Evaluation of Methods

Is the method reliable?	Is it <b>harmless</b> to the individual and to the race?	Is it convenient; does it permit normal conditions of coitus?
<i>Reliable:</i>		
Intravaginal Rubber Pessary fitted by a physician and used with paste, or paste and douche	Yes	Reasonably
Condom, with prior use of paste or tablet	Yes	Not very
Coitus Interruptus with either paste or douche	No	No
<i>Partly Reliable:</i>		
Antiseptic Paste before coitus	Yes	Yes
Suppository or Tablet	Yes	Fairly
Sponge or Tampon — particularly if soaked in spermicidal solution	Yes	Fairly
Condom with subsequent douche	Yes	Not very
<i>Not Reliable:</i>		
Douche	Yes	Reasonably
Condom	Yes	Not very
Coitus Interruptus	No	No
Most Intrauterine Appliances (collar-button pessary, gold button, wish-bone pessary, etc.)	No — very dangerous	Yes
<i>Still Experimental:</i>		
Grafenberg Silver Ring (not as reliable as originally supposed)	Questionable	Yes (except for pain in inserting and occasional physiological complications)
X-ray	Very questionable — may injure germ plasm	Yes
Spermatoxin	Probably	Yes
Hormone	Questionable	Yes
Heat Applied to the Testicles	Questionable	Yes

Injection of chemicals into uterus is omitted from above table as being more often abortion than contraception.

## Part II

### Birth Control Methods

#### METHODS USED BY THE HUSBAND

##### **Coitus Interruptus**

**I**N this method the man withdraws his penis just at the moment of his orgasm, and ejaculates outside the vagina (usually into a towel previously placed beneath the woman's thighs). Requiring little or no instruction, and no apparatus, this method is used by countless men in all countries. My 1930 statistical study showed its use either alone or as an alternate method in 43% of the cases presenting themselves to me.

I do not recommend coitus interruptus. It does not permit normal conditions of coitus and at least in some cases is detrimental to the health of both the man and the woman. Authorities cite cases of anxiety neuroses and various degrees of impotence which they ascribe to this practice. Furthermore, it is not reliable.

It is known that a leakage of fluid containing live spermatozoa can take place prior to ejaculation. Thus impregnation is possible even if the man always withdraws before his orgasm. In addition, most men will occasionally leave a part of the seminal fluid near the entrance to the vagina, or will even miss the right moment and ejaculate into the vagina itself. In either case conception can take place, for we have evidence of the ability of the sperm to work their way up from the vulva, through the vagina into the uterus.

In my practice I have found cases in which coitus interruptus has proven itself a reliable, even though unpleasant, Birth Control method over a period of years. However, I have usually found, in such cases, some partial sterility in the woman which made it difficult for her to conceive; and in the remaining cases there was probably some partial sterility on the part of the husband. To afford complete protection in normal risks, supplementary methods are necessary. An anti-septic (spermicidal) paste should be used before coition, or a spermicidal douche invariably taken immediately following.

I consider coitus interruptus abnormal, unhealthful and unreliable, and I should advise its use only under exceptional circumstances.

### Condom

A condom or French safe is a thin sheath of rubber or animal membrane (so-called fish skin or beetle skin) which is drawn over the erect penis just before coitus. The spermatozoa released during the ejaculation are kept within the sheath and are unable to enter the vagina.

A condom should be tested for leaks by blowing it up or filling it with water before using. The rubber condom should then be rolled back on itself until it resembles a small rimmed hat, and unrolled onto the erect penis. The skin condom should be drawn over the erect penis and the surplus folds wrapped around it. With either condom, it is well to leave a free space at the end for the seminal discharge. Before coitus, condoms should be lubricated with surgical jelly (obtainable in any drug store), antiseptic paste or (except in case of a rubber condom which is to be reused) vaseline. For reliability it is essential that antiseptic paste be used by the woman before coitus. (See "Antiseptic Paste").

I do not recommend the condom. First, the preparations *must* be made at the height of sexual passion, an important objection from the psychological viewpoint. With some men these preparations actually prevent the erection. Second, its presence during coitus is highly disagreeable. Many couples find it impossible to enjoy sex relations with this foreign body present. Third, unless antiseptic paste is used as a supplement one can never tell when the method will fail. Condoms tear, leak and slip off. The danger of leaking can be overcome by testing before using, but one is still left with the other two possibilities. The type of condom which merely fits over the end of the penis like a cap is no improvement over the usual type.

The value of the condom is well summarized in the phrase oft quoted by my professor in a German clinic: "From the point of view of prevention, a condom is as thin as a cobweb;

but from the point of view of the joy of the sexual act, it is as thick as the wall of a fortress."

Some men, urged by their wives whose fear of an undesired baby takes away all sex desire, use two or even three condoms at once. I know a number of families who have done this for years. It is needless to state that under such conditions sex relations are absolutely abnormal and can satisfy neither husband nor wife.

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**Note:** With coitus interruptus either antiseptic paste just before coitus or a douche immediately afterwards may be used as an effective supplementary method because of the reasonable assurance that there are no sperm deep in the vagina. With the condom we have not this assurance, and the douche alone is not a satisfactory supplementary method. (See "Douche".)

### Soluble Cap

Spermicides are mixed with a base as in suppositories and moulded into a shape which can be fitted over the end of the penis like a cap. See "Chemical Methods", particularly "Suppository" for a discussion of the principles involved in this method. It is even less reliable than the usual suppository, and offers even less of a mechanical barrier than the condom.

## METHODS USED BY THE WIFE

### *CHEMICAL METHODS*

Under this heading, we shall consider chemicals introduced into the vagina by the woman for the purpose of destroying the sperm before their entrance into the uterus. Chemicals which effectively accomplish this, we call spermicides. We must of course use only such spermicides as are non-irritating and are harmless to the tissues. All such spermicides at present known, however, require an appreciable length of time to accomplish their purpose, and research is still attempting to find a non-irritating, instantaneous (one minute or less) spermicide.

We know that an acid in sufficient concentration and suffi-

cient quantity will destroy spermatozoa. In too great concentration, however, acids are irritating, and at low concentration, unless the quantity is considerable, the buffer action of the spermatic fluid may reduce the concentration to one comparatively harmless to sperm. Most antiseptics and germicides are fairly good spermicides, but here we must consider seriously the question of possible irritation. Quinine is a fair spermicide, and common soap solution a good one but rather irritating in strong solution. A much used spermicide is oxyquinoline sulphate (one brand of which is called Chinosol). In an acid environment this is very good and at low concentrations harmless to tissue, although slightly irritating to a few people.

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**Important:** In these methods the chemicals do not penetrate the uterus and all such methods are futile if any sperm enter the uterus before the chemical is applied, or if any sperm survive the application of the chemical.

At the moment of ejaculation there may be less than one-quarter inch between the end of the penis and the opening of the cervix. Even supposing this space to be filled with an instantaneous spermicide, the seminal fluid is ejaculated with such force that it could pass through the barrier without the sperm in the center of the stream ever coming in contact with the chemicals. It would thus be possible, even under ideal conditions, for some of the spermatozoa to arrive unharmed at the entrance to the uterus.

### **Douche**

In this method a large quantity of comparatively dilute spermicidal solution is introduced into the vagina after coitus to wash out the seminal fluid and destroy any spermatozoa left behind.

The ordinary fountain syringe consisting of a two quart rubber bag with a long flexible tubing and a small hard-rubber nozzle (the cheapest) is best for this purpose. There is no particular merit in the more expensive ones with "whirling" features. The bulb syringe is expensive, clumsy and difficult to use, and not so efficient. For travelling, or in cases in which the syringe must be stored away, the new folding

fountain syringes may be found convenient. The combination fountain syringe and hot water bottle is not to be recommended.

The bag of the fountain syringe should be nearly filled with warm *not hot nor cold* water (two quarts). The chemicals should be mixed in a glass and thoroughly dissolved. The mixture should then be poured into the bag and stirred with the nozzle. This is very important in the case of Lysol, Creoline, Sylpho-Nathol, etc., since a very serious burn might result if the undiluted chemical were poured directly into the fountain syringe.

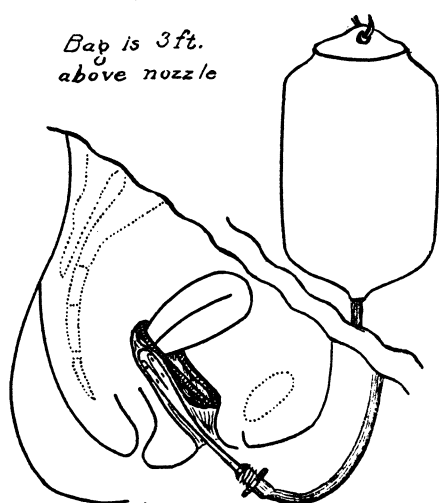


Figure 2  
DOUCHING  
(Pessary has not yet been removed)

The douche may be taken either on a bed pan or sitting over the toilet. In country districts, without toilet facilities, it may be taken over a pail. The bag should be hung about three feet above the level of the vagina, the nozzle should be inserted, the valve on the rubber tube released, and the nozzle moved about inside the vagina while the solution is flowing. It is not necessary to lie down, nor is there any necessity for holding the labia together to distend the vagina. If the douche is being used as

a supplement to the intravaginal pessary one-half the solution should be used, then the valve closed and the pessary removed, and finally the remaining half of the douche taken.

## Chemicals To Be Used For Douching

Boric Acid — 3 tablespoons to 2 quarts  
Vinegar or Lemon Juice } —  $\frac{1}{4}$  glass to 2 quarts  
Lysol or Creolin or Sylpho-Nathol } —  $\frac{1}{4}$  teaspoon (no stronger) to 2 quarts  
(To avoid burning, dissolve separately in a glass of water and pour into douche bag)  
Potassium Permanganate — 1 or 2 grains to 2 quarts  
Alum — 1 teaspoon to 2 quarts  
(Use only if a drying and tightening effect is not objectionable)  
Zonite — 1 tablespoon to 2 quarts  
Soap — A very weak solution.

*Do not use:* Corrosive Sublimate (bichloride of mercury); it is poisonous as a douche.

Salt solution is not advisable. It may become diluted and support the life of the spermatozoa. For the same reason sodium bicarbonate and most other alkaline solutions (except soap) should not be used. Warm soap suds are always available but should be used only in a very dilute solution. Plain water is better than nothing.

Some advise douching before coitus. This contradicts the condition of simplicity and normality, for too much preparation immediately before coitus interferes with sex relations. It also washes out the normal secretions of the parts, and leaves the vagina abnormally dry. Finally, the amount of solution left after the douche would be totally inadequate for the quantity of seminal fluid, and we always have the possibility of ejaculation directly onto the cervix where the thin coating of spermicidal solution would be of little use.

Many women claim perfect success with douching for the same reason that others have success with coitus interruptus. In these cases there is usually some cause of partial sterility, which aids the method. In a normal case, however, douching will not accomplish its purpose.

Douching used alone is absolutely unreliable for normal cases. The spermatozoa can enter the uterus during coition or while the douche is being prepared. Douching by itself is therefore not recommended, but as a supplement to certain other methods it is most helpful.

### Lathering

For those cases in which facilities for douching are lacking, lathering of the vagina with soap suds is recommended by some authorities. The patient makes a strong solution with toilet soap, soap flakes, or shaving cream, and carefully lathers the entire vagina, using the forefinger. She must be taught to recognize the cervix and to pay particular attention to it.

This method, used alone, has all the disadvantages above given for the douche. In addition is the fact that some women will find it difficult to sufficiently lather the inner parts of the vagina, and the further objection that a strong soap solution is used, which will prove very irritating in most cases.

### Suppository

Spermicides mixed with cocoa butter, boro-glyceride or jellies are made up in egg-shaped or conical form. Some time before coitus, one of these suppositories is inserted deep in the vagina so that the finger can hardly feel it. A sufficient lapse of time is permitted for the body heat to melt the suppository, and then, after ejaculation, the chemicals are supposed to destroy the sperm. In the case of cocoa butter, a greasy film is formed which acts as a partial mechanical barrier to the spermatozoa. At least seven minutes must be allowed for a cocoa butter suppository to melt, and at least twenty minutes for a boro-glyceride.

The price of suppositories is about seventy-five cents a dozen. They can be made up in any drug store. The following are used:

Quinine sulphate	- - - - -	grain two
Boric acid	- - - - -	grain two
Cocoa butter	- - - - -	drachm one
This makes one vaginal suppository.		

Oxyquinoline sulphate	- - - - -	grain one-fifth
Boric acid	- - - - -	grain two
Cocoa butter	- - - - -	drachm one
This makes one vaginal suppository.		

The suppository is not to be recommended as a Birth Control method. The time required for it to melt is, to say the least, irksome; and however long a period is permitted to

elapse, one can never be sure that the suppository has completely melted. Cocoa butter suppositories have been removed from the vagina practically intact after twelve hours, and boro-glyceride after as long as twenty-four hours. Cocoa butter is irritating to some men, and most couples find its odor objectionable.

Unless melted, the suppository is absolutely ineffective, and even if melted it is less effective than antiseptic paste. It seems probable, at least with the cocoa butter suppository, that the greasy base coats the chemical and prevents it coming in contact with the spermatozoa. The suppository is classified by practically all workers in contraception as an utterly unreliable method for general use.

### **Tablet**

Spermicides are mixed with various chemicals which will effervesce in the presence of moisture, and are made up in tablet form. A tablet is inserted deep in the vagina just before coitus, and the moisture of the vagina is supposed to cause complete effervescence of the tablet and thus fill the vagina with a spermicidal foam.

In many cases the tablet fails to dissolve and is thus completely useless. If it dissolves, it takes its moisture from the vagina and has a harmful drying effect. Furthermore the chemicals are so concentrated that there is a painful smarting sensation at the vulva. This offers a serious objection.

This method is even less reliable than the suppository. There is no mechanical barrier to the direct ejaculation of sperm into the cervix, and the total amount of spermicidal solution is insufficient to destroy the spermatozoa. One would not inject a teaspoonful of a watery solution into the vagina and expect results. This is at best all the tablet affords.

Tablets are not recommended for ordinary use, but may be helpful in hot climates, in place of antiseptic paste.

### **Powder**

Recently the blowing of spermicidal powders into the vagina has been advocated. This is open to the same general objections as the tablet. The use of powder blowers depends

on a misconception of the anatomy of the vagina, which is erroneously supposed to be a *cavity* into all parts of which the powder can be blown. Under actual anatomical conditions most of the powder will be deposited at whatever portion of the vaginal wall the powder blower happens to touch, thus giving practically no protection.

### Antiseptic Paste (Jelly)

Spermicides mixed with a water-soluble paste or jelly are put up in collapsible tubes the same as tooth paste or shaving cream. A nozzle about six inches long is usually included as an applicator. Such a paste is the best means of introducing spermicides into the vagina and has many advantages over the suppository or tablet.

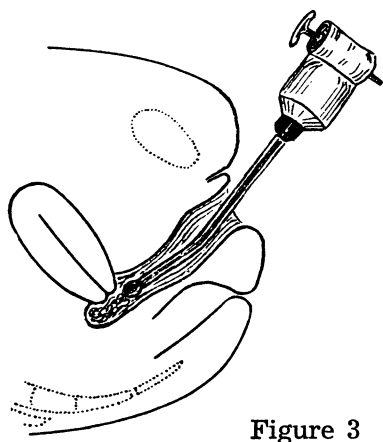


Figure 3  
APPLICATION OF PASTE  
(Before coitus)

It is soft and melts at once. It is more easily introduced and the chemical readily deposited more deeply, because most women can manage the vaginal nozzle better than a suppository. It consists mainly of some gelatin, or a starch-glycerine mixture, and is less disagreeable than cocoa butter. The chemicals readily pass into solution and act upon the spermatozoa at once, whereas in the case of cocoa butter, the fatty consistency interferes with the action of the chemicals.

There are three uses for antiseptic paste: (1) It can be used as the only preventive, or as a supplement to the condom or coitus interruptus; (2) It can be smeared upon an intra-vaginal pessary when it is being inserted; (3) When an intra-vaginal pessary is being used, paste can be used after coitus instead of a douche to destroy the spermatozoa before the pessary is removed. When used for purposes one or three, the nozzle is screwed on to the tube and the key at the end of the tube is turned until the nozzle is full of the paste. The nozzle

is then inserted into the vagina as far as it will go — usually about two-thirds the length of the nozzle — and the key is turned a one-half revolution. After a few seconds, the tube is withdrawn, and the end of the nozzle stopped with a plug or stopper furnished for this purpose.

There has been much discussion regarding the best composition for spermicidal paste, particularly over the question of pastes containing only an acid vs. those containing oxyquinoline-sulphate with an acid. For reasons given in detail elsewhere,<sup>1</sup> I am strongly in favor of the inclusion of oxyquinoline sulphate, or some other proved spermicide.

There is no doubt that antiseptic paste is the best of the chemical preventives, and is, perhaps, the best Birth Control method now available without the help of a physician. However, there is always the possibility of a direct entrance of sperm into the uterus before the paste has had time to act. Although some pastes claim to offer sufficient mechanical barrier to prevent this,<sup>2</sup> their claims do not seem to be substantiated and antiseptic paste, used alone, cannot be classified as a completely reliable method for most cases.

### MECHANICAL APPLIANCES

Certain mechanical appliances can be used by the woman as a barrier to the cervix and thus prevent the entrance of the spermatozoa into the uterus during coitus. The spermatozoa must, of course, be removed or destroyed before the appliance is removed.

<sup>1</sup> "Physicians' Manual of Birth Control", pages 52-53. Recent work by Baker (Journal of Hygiene, London, April 1931, June 1931, April 1932) shows oxyquinoline sulphate as less effective than many other spermicides. His work, with all chemicals except acids, was done in a basic medium (at a pH optimum for life of sperm). I do not know of any published work done with oxyquinoline sulphate in an acid medium, although most antiseptic pastes use an acid with this chemical. My own laboratory work with oxyquinoline sulphate in the presence of acids showed it a satisfactory spermicide, and in view of this, and the results obtained clinically, I hold to my favorable opinion. I have seen no reports of clinical experience with pastes containing any of the other chemicals which he mentions.

<sup>2</sup> Among the more recent are an ingenious appliance for shooting a globule of paste onto the cervix, and an effervescent paste claiming to surround the cervix with an impenetrable spermicidal foam. Claims for 100% success clinically are not borne out upon investigation, and these pastes appear to be no improvement on the conventional ones.

### Sponge or Tampon

The first suggestion that would come to the mind is a sponge or wad of cotton placed in the vagina in front of the cervix. Pieces of cotton, sponges, or gauze, soaked in an acid or antiseptic solution, are used for this purpose. If one looks at the Anatomical Diagram (Figure 1), one will see how easily the erect penis can push such a sponge away from the cervix into the back part of the vagina. This leaves the entrance into the uterus unprotected, with consequent likelihood of impregnation. If the sponge or tampon is so large as to prevent dislodgement, it interferes with coition. The cup-shaped sponge now being advocated is really a poorly designed pessary, and is open to the objections to any pessary not fitted to the individual patient by a physician. (See "Intravaginal Pessary" below, and also Part III).

This method is unsatisfactory.

### Intravaginal Pessary

In this method the woman is fitted by a physician with a rubber appliance to divide the vagina into two parts — one in which coitus takes place, and the other containing the cervix. The appliance is inserted by the woman *at any time* prior to coitus, and the spermatozoa are unable to pass from the vagina into the uterus. The sperm remain in the vagina and must be washed out by a spermicidal douche or destroyed by an antiseptic paste before the pessary is removed, otherwise they might enter the uterus and impregnation take place; for the sperm are capable of living hours, and in some cases days, in the vagina. It is important that the proper size and type of pessary be fitted by a physician or else the pessary may be pushed off during coitus, or the fit be so poor that an insufficient barrier is offered to the sperm.

*When properly fitted this is the best Birth Control method now available for general use.*

#### *It Is Reliable*

The spermatozoa cannot enter the uterus since the cervix is covered during coitus, and they are removed by a spermicidal douche or destroyed by a paste before the pessary is

taken out. For greater safety a little paste is placed on the pessary to stop any spermatozoa which might get under the edge. My 1930 statistical study showed only three per cent failure with patients who claimed to have followed instructions.<sup>1</sup>

### *It Is Harmless*

The pessary, if well fitted, does not rub or irritate any part of the uterus or vagina. It remains in the vagina only over night or for a short time, and cannot interfere with the normal discharge of the uterus. I have fitted over five thousand patients with pessaries, some of whom have used the method for fifteen or twenty years. I have seen and examined them many times during that period, and have found no harmful consequences.

### *It Permits Normal Conditions of Coitus*

In all but a very small percentage of cases neither the wife nor the husband is conscious of the presence of the pessary. In an occasional case, the husband is aware of its presence, but finds it less annoying than the use of other mechanical devices. The husband is usually convinced with difficulty that the wife is really wearing an appliance, and so little is the appliance felt by the average woman that she occasionally forgets to remove it and only remembers its presence hours later. This is supported by my 1930 statistical study in which less than five per cent reported any interference with sex pleasure on the part of either the husband or wife, or any physical discomfort whatsoever from the use of the pessary. Another three per cent found douching inconvenient or objected to the paste.<sup>2</sup>

Preparations for coitus are always a disadvantage. To avoid this, the pessary can be introduced hours before coitus takes place. Douching can be delayed until morning, or for many hours: repetition of coitus is possible without new pre-

<sup>1</sup> This study is given in detail in "Physicians' Manual of Birth Control". A preliminary working of my 1932 statistics, at present being compiled, seems to show only two per cent failures.

<sup>2</sup> I have not yet compiled this data for my 1932 series.

parations. Properly used, this method offers no psychological or physical interference to normal conditions of coitus.

*The Use of a Pessary Is Simple*

Any woman can learn its use within ten or twenty minutes. After having practiced its application, the introduction should not take more than a few seconds.

I am often asked whether the pessary can be worn steadily. This should not be done because the pessary prevents the escape of the normal secretions of the uterus. Again, the pessary may slip during exercise or bowel movement. Since the pessary is so easily adjusted by the average woman it should be inserted whenever needed. If the pessary is inserted before retiring, as a regular part of the evening toilette, whether intercourse is definitely expected or not, there is no disagreeable interruption either physically or mentally to the love embrace.

(See Part III for a complete discussion of this method.)

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## METHODS NOT REQUIRING COOPERATION OF EITHER HUSBAND OR WIFE

The ideal Birth Control method would not require any preparation or after-care by either the husband or the wife. A magic potion given by the physician and serving as a contraceptive for a definite period is the goal of much research. All of this has come to naught so far, but it is interesting to briefly discuss such methods.

### **X-rays**

It is known that continued exposure to X-rays will result in permanent sterility to either man or woman, and that a limited amount of exposure will produce sterility for a time. It has been found, however, that X-rays when used on plants and fruit flies, result in mutations — hereditary changes of various kinds in the offspring of the treated species. It is, therefore, feared that when used on human beings a permanent injury might be done to the germ plasm and later gene-

rations show various abnormalities. We cannot take this chance.

### Heat Applied to the Testicles

The development of spermatozoa may be arrested for a period following the application of heat to the testicles. This offers hope for the development of some method of temporary sterilization. Means must be evolved to determine the duration of sterility, and it must also be definitely discovered whether or not there is any possibility of injury to the health of the individual, or to later generations, as in the case of X-rays.

### Hormone

Attempts have been made to control ovulation by administering various hormone extracts to the female. In experiments on animals some of these methods have resulted in later offspring being weak or abnormal.

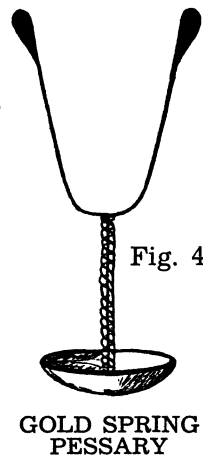
### Spermatoxin

It has been hoped that dead sperm, introduced into the woman's blood stream, would produce antibodies and confer immunity against sperm for a period. Experiments tried in Russia have seemed hopeful, but far from conclusive.

### Intrauterine Appliances

Various appliances can be inserted into the uterus by a physician, so as to make the uterine lining unsuitable for the development of an impregnated ovum. Some of these are very dangerous and should never be used. Among these are the so-called gold button, collar-button pessary, and the gold spring (wishbone) pessary, the last named rightly called an instrument of torture. More recent and, in the hands of a trained gynecologist, less dangerous, are the Pust pessary and the Grafenberg silver ring.

All of these methods obtain their effectiveness by irritat-



ing the lining of the uterus, and it is feared that such irritation may lead to cancer, etc. *This is what is referred to when some Birth-Control opponents say that Birth Control methods cause cancer.*

All authorities agree in condemning the older devices, but there is still a difference of opinion about the Pust pessary and the Grafenberg ring. However, the tide of opinion seems to be turning against these also. None of the intrauterine appliances can be relied upon to prevent conception in every case.

### **Chemicals Introduced into Uterus**

In Germany and Russia, injections of iodine into the uterus are used as a Birth Control method. This is done by the physician every month, and is sometimes very painful. It does not recommend itself as a contraceptive method to most physicians.

### **Sterilization**

I have not considered this method of Birth Control because I am writing for those who desire to regulate the births of their children, not for those desiring none. This method, by use of surgical or other means, renders the person permanently incapable of becoming a parent. The operation commonly used to sterilize the male (vasectomy) is a simple office procedure done under local anesthesia. The usual method for sterilizing the woman, however, is a major operation (salpingectomy), requiring an abdominal incision.

Sterilization is only advisable in case of hereditary disease, or when pregnancy would endanger the life of the woman, as in repeated Caesarean deliveries. For the case where such sterilization is required, however, the patient may rest assured that the methods now used do not involve the removal of any organ and do not interfere with the general health or the sexual life in any way.

### **FALLACIOUS NOTIONS**

There are a number of popular notions regarding Birth Control, some of which have a certain foundation in fact, but

none of which can be relied upon as an effective contraceptive method.

### **Urinating after Coitus**

Many women believe that urinating after coitus will prevent pregnancy. An inspection of the Anatomical Diagram (Figure 1) will show that this act could have no possible effect upon the sperm in the vagina.

### **Coitus Outside (within the vulva)**

Many women are not aware that the sperm can travel from the vulva *outside the vagina*, through the entrance, up through the vagina into the uterus. A woman who has used this method (often a newlywed) and who claims that "There never have been any real sexual relations" is frequently surprised to find that she is pregnant.

### **Frigidity**

Some women think that conception will not take place if they do not respond sexually. Much sexual coldness is due to this misapprehension. The method may result in much unhappiness to the married couple but is absolutely ineffective as a Birth Control method.

### **Safe Period**

It is true that there is a greater chance of impregnation during the first ten days after menstruation and a lesser chance during the week just before menstruation. However, there is no period within the menstrual cycle which is known to be absolutely safe for all women; and when, for any individual woman, such a safe period is found, there can be no positive assurance that it will continue so. Reliance on the safe period will usually result in frequent pregnancies.

### **Lactation**

Women are less apt to conceive while nursing, but even so, it is possible for conception to take place as early as the second month after delivery. Women should, therefore, use protective methods during the nursing period also.

**NEWLYWEDS**

Contraception offers particular problems in the case of the newly married. If the hymen is present and undilated, a pessary cannot be fitted. In this case the paste applied through a vaginal nozzle, is the best method (See "Antiseptic Paste"). Complete reliability requires that this be used in conjunction with a condom or coitus interruptus. This method should be changed to a well-fitting rubber pessary as soon as the vagina is sufficiently dilated, usually about two to four weeks after marriage. The newlywed should be informed that a refitting will be necessary after three or four months and again after a year, because of the increased dilatation of the vagina.<sup>1</sup>

The possibility of using a pessary should not be ruled out, however, until after a physical examination by a physician, since the hymen may not be present. If the hymen is present and the need for contraception great, the patient may be instructed by the physician how to bring about dilatation, and after a week or more return for a fitting. In any event, the physician can be of much help to the bride-to-be, and it would be well if such a visit were generally part of the pre-marital routine.

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<sup>1</sup> This is due, of course, to the normal dilatation following marriage, and not to any stretching effect of the diaphragmatic pessary. One might as well claim that the series of decreasing sizes following childbirth were due to some tightening effect of the pessary.

## Part III

### Types of Intravaginal Pessaries and Their Technique

IN Part II we referred briefly to intravaginal pessaries and gave the reasons why they are usually considered the best Birth Control method now available for general use. In this section we will discuss the various types of such pessaries and will briefly outline their technique. The layman, however, must not attempt to use this as a basis for self-prescription, since to do so would almost certainly result in failure. The task of determining the type and size of pessary required by the woman is definitely the physician's, and the factors underlying his choice are much too manifold to be adequately covered in this pamphlet.

#### DIFFERENT TYPES OF PESSARIES

Intravaginal pessaries may be divided into

1. Cervical Pessary
2. Vault Pessary
3. Diaphragmatic Pessary

#### Cervical Pessary

The cervical pessary, made of aluminum, silver, hard or soft rubber, is shaped like a thimble, only larger, and is intended to fit snugly over the cervix. To do this it must be made in a considerable number of sizes, and even so it can be fitted only to certain types of cervixes. It is ordinarily put in place by the physician and is worn continuously until the woman menstruates, whereupon it is removed by the woman, and later replaced by the physician after the period is over.

In many cases, this pessary can be pushed off during coitus, sometimes without the woman having knowledge that she is unprotected. Its use should be limited to a very few selected cases, and its great vogue in Germany, Austria and Russia is not deserved. I do not prescribe it.

### Vault Pessary

A vault pessary covers the cervix with a cap, like the cervical pessary, but instead of the cap fitting the cervix snugly there is a thick rim which fills the vaginal vault around the cervix. The cap itself hangs loosely, the pessary being held in place by the pressure of the rim *outward* in the fornices. There are several different types, with an inflated or solid rim one-eighth to one-half inch thick. All are made of soft rubber, each type being available in three or more sizes. These pessaries are fitted by a physician, but are worn only over night, as the patient is taught how to put on and remove the pessary.

Some persons persist in calling this type a cervical pessary. The presence of the large rim gives a decided advantage, and in my opinion, this fact, with the different technique, warrants the separate classification. This classification is my own, and the pessaries are generally known by their various type names given below.

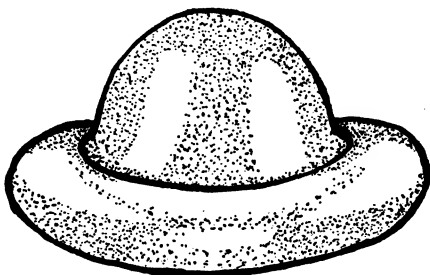


Figure 5  
FRENCH PESSARY

**The French Pessary** made of heat vulcanized rubber is the characteristic vault pessary. Its solid or inflated rim varies, with different sizes, from one-quarter to one-half inch in thickness. The center section is covered by a thin, hemispherical cap, varying from about one to one and one-half inches in diameter.

**The Pro-Race**, or Stopes' Pessary (much used in England) or the American **Akma-Hydome** has a thinner rim than the French, and a much longer cap. The sizes run considerably smaller. To help in its removal it is sometimes supplied with a rubber loop near the rim, which I usually remove. For general use this is not an improvement on the French pessary, but it is helpful in special cases.

**The Mizpah Pessary** has a very heavy, solid rim with a slit around the outside circumference into which a thin de-

tachable cap is tied on by a string. This string also helps the patient to remove the pessary. The sizes correspond roughly to the French pessary.

The heavy, clumsy rim, and the ease with which the cap can become detached make the use of this pessary inadvisable except for special cases. It may prove helpful to some women because it is so easily removed whereas the removal of the French pessary often presents difficulties to the novice. I sometimes prescribe it when a vault pessary is required, to accustom the patient to the use of this type, but almost always change it for a French pessary after the patient has become more experienced.

**Small Sizes of Diaphragmatic Pessary (55 and 60 mm.)** are sometimes used as vault pessaries in cases in which the fornices are too narrow to admit the rim of the French pessary.

**The Flat Pessary (Dumas Pessary)** has the shape of a shallow saucer, the whole being made of a single piece of heavy rubber. This pessary can last for years, but it fits only special cases and is not suitable for general use.

### Diaphragmatic Pessary

The diaphragmatic pessary is a thin-rubber dome, somewhat resembling half a tennis ball, with a firm spiral spring or a watch spring (Mensinga type) in the rim. This pessary comes in ten or more sizes from 50 mm. to 95 mm. in diameter, the average being from 65 mm. to 75 mm. (about two and three-quarters inches.)

This pessary instead of fitting the vault around the cervix, blocks off the entire anterior (upper) section of the vagina, from the posterior fornix to the symphysis pubis (see Fig. 7). The patient is often astounded at the large size of this pessary, and usually has to be fitted before she will believe that it can be worn without discomfort.

The largest size should be fitted which can be *comfortably* worn.<sup>1</sup> The spring rim should be firm enough to stay in place, but yet flexible enough to hold its circular shape. Newlyweds

<sup>1</sup> Too small a pessary will give discomfort to both husband and wife, and will be apt to result in failure. Physicians who fit principally the very small sizes probably use these diaphragms as vault pessaries instead of according to the approved diaphragmatic technique.

must often be given a weak rim at the first fitting, which they can easily manage, to be changed later to a firmer rim. (The change of pessary will be necessary anyway because of change in size as the vagina undergoes the normal dilatation following marriage.)

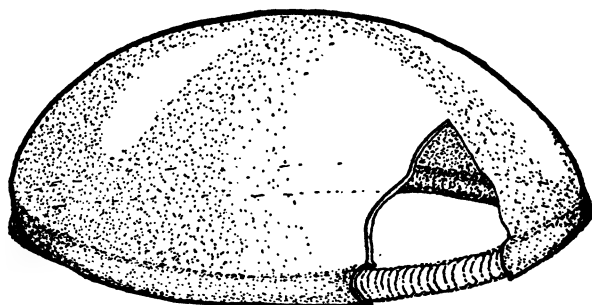


Figure 6

DIAPHRAGMATIC PESSARY WITH COILED SPRING  
(A piece is cut out to expose the spring)

### Block-Shaped Pessary

A cube of rubber or other material, with a cup-shaped indentation on every face is on the market. The idea of the device is that it can be inserted in any manner, without the possibility of failing to cover the cervix by one of its cup-shaped faces. In actual practice this is by no means certain and this pessary is absolutely unreliable. Furthermore its bulk and shape can cause irritation to the female and male organs. This cubical pessary has been known to cause an opening between the bladder, rectum, and vagina.

### Vault Pessary vs. Diaphragmatic

Up until a few years ago, good diaphragmatic pessaries were difficult to procure, and the physician was forced to prescribe the vault type regardless of the anatomy of the patient. Since this type is definitely unsuited to normal cases, there were failures. When diaphragmatic pessaries became generally available, some authorities went to the other extreme and discarded the vault type altogether, using the diaphragmatic type for all conditions. This extreme viewpoint, I have

persistently opposed; and it is now becoming recognized that while the diaphragmatic pessary should be used for most cases, there are yet various anatomical exceptions (noted below) for which either the vault type must be prescribed or special precautions taken with the diaphragmatic.

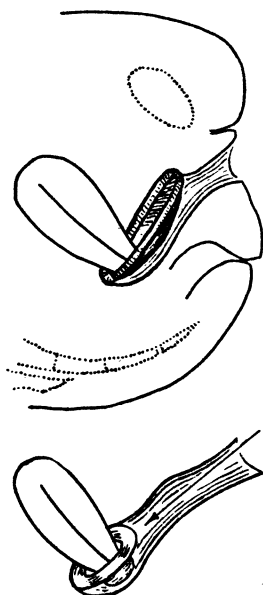


Figure 7  
NORMAL UTERUS

Upper:  
Diaphragmatic Pessary  
in position.

Lower:  
Vault Pessary - can be  
displaced by stroke  
of penis.

When used for normal or slightly anteverted uteri, the vault pessary can be pushed off by the penis, resulting in a failure. For these cases, the diaphragmatic type is definitely to be preferred. Since, also, the use of the diaphragmatic type is more easily taught, and since this pessary can be more easily inserted and removed by the patient, it is to be preferred for use, other things being equal.

In retroversion, retroflexion, and sometimes marked anteflexion, however, there is a real danger of the patient sometimes inserting a diaphragmatic pessary so that it lies between the *anterior* fornix and the symphysis, instead of resting in the posterior fornix. This would leave the cervix exposed, and for these cases a vault type should usually be prescribed.

Space does not permit an exhaustive discussion of this matter, and this is not the place for such a discussion. The illustrations (Figures 7 and 8) will help clarify the point, and the interested physician is referred to my larger work ("Physicians' Manual of Birth Control") for a full discussion. I may state, however, that it is not merely a theoretical question. I have had patients with retroversion insert the diaphragmatic pessary incorrectly after the most careful instruction, and I have even seen physicians make this error.

In my practice I fit vault pessaries to about twenty per cent of my cases.

### Technique of Intravaginal Pessaries

The pessary is to be inserted by the woman at any time before coitus. A small amount of antiseptic paste should be placed upon that portion of the pessary which will face the cervix.

**The Vault Pessary**, folded with the rim upward (dome-down), and paste inside the cup, is introduced into the vagina, being held between the thumb and the middle and index fingers. After it is pushed through the entrance it will open; and it should then be pushed downward and backward. One must push firmly for the walls of the vagina close tightly and the pressure of these walls must be overcome.

The pessary should be pushed as far as it will go, about a finger's length from the entrance. The further portion of the rim will be in the posterior fornix, and the nearer portion should then be pushed upward towards the abdomen, when it will slip over the cervix. Care should be particularly taken to press the upper part firmly into the anterior fornix. As a final check the patient should feel the cervix through the rubber of the loosely hanging cap.

This pessary is removed by introducing the finger sidewise and pushing the rim down by a repeated hooking down movement of the finger, until the finger gets inside the cup and the rim can be pulled down. A little bearing down by the patient helps.

**The Diaphragmatic Pessary** may be inserted either dome-down like the vault pessary, or dome-up. I prefer the dome-up position as leaving the inside of the rim free for ease in

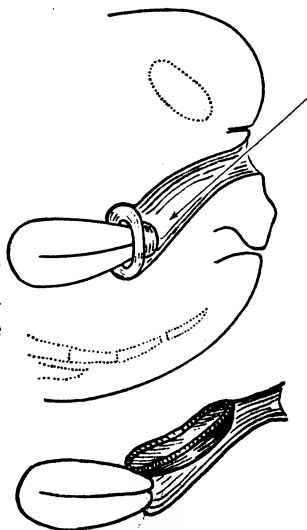


Figure 8

#### RETROVERTED UTERUS

Upper: Vault Pessary, cannot be displaced with this position of uterus.

Lower: Diaphragmatic Pessary — easily misplaced with this position.

removing the pessary. Paste should be placed upon the portion of the pessary which will face the cervix (inside the cup, if the dome-down position be used; on top of the dome, in the dome-up position) and the pessary held between the thumb and the index and middle fingers. The rim containing the spring is then squeezed together and the pessary inserted into the vagina by being pushed downward, backward and inward.

The pessary is pushed as far as it will go (into the posterior fornix) and then the front part of the rim, now situated just above the entrance to the vagina, is pushed upward. In its final position the front of the rim rests behind the symphysis pubis (the bony arch which can be felt above the entrance), and the back part of the rim lies in the posterior fornix behind the cervix, where it cannot be felt. The patient should finally check up on two details: (1) the front portion of the rim should be behind the pubic arch; (2) the cervix should be felt, covered by the rubber of the pessary. As will be seen from the diagram, the cervix will usually be felt not through the center of the pessary but two-thirds way back or more, near the further part of the rim.

This pessary is removed by hooking the index finger in the rim, near the entrance of the vagina, and pulling out, with the finger continually pressing firmly upward.

**Important Rule:** A pessary should never be removed, if coitus has taken place, without a spermicidal douche. This douche can be taken immediately or postponed until morning (See "Douche"). Contrary to some text books it is not necessary to wait until morning, if the wife prefers to douche immediately and remove her pessary. Antiseptic paste can be used instead of the douche but in this case an interval of three hours must elapse before the pessary is removed. If the woman has to move her bowels after coition has taken place and before the pessary can be removed under the above rule, a spermicidal douche must first be taken according to the usual procedure.

### **The Pessary Director**

The pessary director is intended as an aid for the woman who cannot readily guide the rim of the diaphragmatic pessary into the posterior fornix. Some physicians prefer to teach its use in all cases of retroversion or sharp antelexion, instead of, as I prefer, prescribing a vault pessary.

These directors are made of aluminum, in various types and shapes, all terminating in a flat strip with a horizontal slit in the end to slip inside the dome of the pessary, into the further edge of its rim. The pessary lies upon the director, dome up, and in some models there are notches upon the upper face of the director to engage the nearer edge of the rim.

The director, with pessary in place upon it, is introduced into the vagina with a continual downward pressure. It will travel along the posterior vaginal wall, and when it is in as far as it will go, the further end of the director, with the rim of the pessary, will lie in the posterior fornix. The nearer edge of the rim which will be just within the vagina, should then be pushed up behind the symphysis by the finger, and the director withdrawn. The patient should make the usual final check by feeling the front part of the rim behind the symphysis, and feeling the cervix through the rubber of the pessary.

### **General Directions to Women for Use of Pessaries<sup>1</sup>**

#### **Note to the Patient:**

The physician fitting the patient will give his own instructions, and the patient should follow his directions rather than the author's whenever the two differ. There may be particular circumstances which make a different procedure advisable.

To understand the use of the pessary a woman must first become acquainted with her own body. Many women think of their sexual organs with disgust: they have been brought up with such ideas. Such an aversion, based on the old, wrong

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<sup>1</sup> Whether or not the physician cares to give this booklet to the woman, it is hoped that this section, addressed to her in colloquial

conception that everything connected with sex is low and vile, must be overcome.

The normal vagina is as clean as the mouth. If you will look at the diagram (Figure 1) you will see that the bladder empties through a separate opening. If you are afraid to touch yourself, or if it pains you to do so, try taking a warm water douche every day for a week, and afterwards carefully examining yourself. You will see that there is nothing to be ashamed of and nothing to worry about.

A woman can best examine herself in a squatting position. Before doing this she should, of course, wash her hands. She should insert the first finger of her right hand from in front of herself into the vagina, directing it downward, inward and backward. When inserted full length it will strike (way back and down) the cervix, a round smooth little body, the size of the thumb. A very tiny opening in this (about the size of a pin) leads into the uterus. In the usual position of the uterus, the cervix points downwards, and this opening will not be felt, only the smooth surface of the front part of the cervix. This is the only projection into the vagina, which is otherwise like a soft bag, the walls closing tightly over the finger.

It is this cervix which must be covered by the pessary during coition, and which must remain covered until all the spermatozoa in the vagina have been destroyed or washed out.

Do not think of the pessary as something to wear only if you expect coition. Put it on as part of your evening toilette

language, will help him in advising his patients. The physician is urged to give particular attention to the woman's general attitude towards sex and towards her sexual organs. The most careful fitting will be in vain if the patient is permitted to retain an attitude of shame and disgust. The pessary does not make difficult demands on the woman in its technique (I have successfully taught its use to women with mental ages below ten years who have been sent to me by psychiatrists), but it does require that she have a clean and healthy attitude towards sex and her body,—this the physician must help her to obtain. In my opinion at least some of the "failures" reported by Mrs. L. S. Florence of the Cambridge (England) Clinic ("Birth Control on Trial", London, George Allen & Unwin, Ltd., 1930) are due to not paying sufficient attention to this aspect. One must also consider the small average size of the pessaries fitted by this clinic, as shown by Mr. Norman Himes (Journal of the New Hampshire Medical Society, May 1, 1930). See note page 28.

whenever there is a reasonable likelihood of sex relations. With some patients this will be every night, with others much less often. Do not, however, think that your preparation means that you actually expect relations. You are prepared. If coitus takes place, all right, and if not, all right. Never, however, permit the slightest love play, without being sure that your pessary is in place. Before inserting the pessary, place a small amount of paste on the part of it which will be next to your cervix.

Insert the pessary according to your physician's instructions (the previous section "Technique of Intravaginal Pessaries" may be helpful) and do not be afraid that you may put it in too far or that it may get lost somewhere in your body. The vagina is a closed passage except for the tiny opening in the cervix leading to the uterus, and this is no larger than a pin-point. After the pessary is in place, make a habit of always inserting your finger and feeling the cervix through the rubber of the pessary.

If coition takes place, you must be sure to take a spermicidal douche before removing the pessary or if you have to move your bowels. (See "Douche"). Take one-half of the douche before removing the pessary, and the other half after its removal. Always wash the genitals while douching. If you prefer, you can use antiseptic paste immediately after coition, in place of the douche the next morning (See "Antiseptic Paste"). If you do this, you must leave the pessary in place for three hours after using the paste in order to give the spermicides in the paste time to kill the sperm.

After removing the pessary, wash it in cold or lukewarm (not hot) water, dry it carefully, powder it with any talcum or baby powder, and place it in a box where it will be kept clean. Do not boil it or attempt to sterilize it—the antiseptic paste and douche have been sufficient. Never use vaseline. It will ruin the pessary.

If the pessary is felt by either you or your husband, or if either of you experiences any discomfort whatsoever from either the pessary or paste, revisit the physician who fitted you and he will be able to rectify the trouble.

Be sure to return to your physician for a check-up at least once a year, or oftener if he requests. Your anatomical con-

dition may change, and a different type or size pessary be required. If you were fitted as a newlywed or a recent mother, several visits will be necessary during the first year before you can receive a final fitting. A new fitting will always be necessary after childbirth.

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A space is left here for any further directions your physician may wish to insert.

## GLOSSARY

- Anteflexion** of uterus: a condition in which the body of the uterus (womb) is bent forward.
- Anterior:** front. The **anterior vaginal wall** is the front or upper wall of the vagina. The **anterior fornix** is the space between that wall and the cervix.
- Antibody:** a substance created in the body which will destroy or render ineffective some definite foreign substance.
- Buffer action:** the tendency of certain chemical compounds (for example, protein salts) to maintain a solution at a constant pH, thus counteracting the effect of any added acid or alkaline solution.
- Cervix:** the portion of the uterus (womb) projecting into the vagina, with its tiny opening to the cavity of the uterus.
- Coitus, coition:** the sexual act.
- Germ cells, germ plasm:** those cells in the body which are reserved for the production of sperm or ova.
- Hormone:** a substance created in one of the ductless glands which controls (either alone or in combination with other hormones) certain actions of the body. The sexual and reproductive functions are controlled by a number of hormones, among which are hormones from the pituitary, and the ovaries or testes.
- Immunity:** the building up in a body of sufficient antibody to destroy all of some particular substance which may gain entrance.
- Impotence:** inability of a man to engage in sexual intercourse.
- Intrauterine:** within the uterus (womb).
- Intravaginal:** within the vagina.
- Pathological:** pertaining to disease.
- pH:** measure of active acidity or alkalinity of a solution (a much better measure than percentage of acid). A pH of 7 is neutral, that is, neither acid nor alkaline. The higher the pH above 7, the more actively alkaline the solution; the lower the pH below 7, the more actively acid.
- Posterior:** rear. The **posterior vaginal wall** is the rear or lower wall of the vagina, nearest the rectum. The **posterior fornix** is the space between this wall and the cervix.
- Retroflexion** of the uterus: a condition in which the body of the uterus (womb) is bent backwards.
- Retroversion** of the uterus: a condition in which the whole uterus (womb) is tilted backwards. See figure 8.
- Salpingectomy** for sterilization: the operation commonly used to sterilize a woman. Under general anesthesia, and following an abdominal incision, a small section of each of the Fallopian Tubes (the tubes from the ovaries to the uterus) is cut out, and the ends tied and buried. The operation does not result in any interference with the sexual act or the general health.
- Sperm, spermatozoon** (plural, **spermatazoa**): the male reproductive cell, millions of which are ejaculated by the male during sexual intercourse.
- Spermicide:** a substance which will kill sperm.
- Sterility:** a condition in which conception cannot result from sexual relations.
- Symphysis pubis:** the meeting, in front, of the pelvis or hip bones: in women, the bony structure felt just above the entrance to the vagina.
- Uterus:** womb.
- Vasectomy:** the operation commonly used to sterilize a man. Under local anesthesia, a small section of each of the vas deferens (the ducts leading from the testes) is cut out, and the ends tied. This operation does not result in any interference with the sexual act or the general health.

See also "Anatomy and Physiology of Conception" (page 3) and figure 1.